

deprescribe PPIs on a pharmacist's advice (OR 1.05, CI 1.00–1.09; p 0.031).

Conclusion: Most patients with cancer prescribed PPIs are open to deprescribing non-cancer medicines, especially on a doctor's advice. However, willingness to deprescribe PPIs is approximately 10% lower. Key factors influencing willingness to deprescribe PPIs include older age, greater involvement in medication management, and fewer concerns about stopping. Engaging these patients in shared decision-making and educating them on the risks of prolonged PPI use and the benefits of PPI deprescribing may support safer, more effective deprescribing.

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Strengthening multidisciplinary approaches against antimicrobial resistance: A collaborative initiative reflecting on science, policy, regulatory and clinical practices

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Background: The increasing trends of antimicrobial resistance (AMR) are inferring warning signs that we cannot fail to heed. Optimizing research and practice in pharmaceutical care for infectious diseases may not be tackled by one sector or one country in isolation. The MMA Academy for Patient Centred Excellence and Innovation in Regulatory Sciences, under the auspices of the Malta Medicines Authority (MMA), endeavored to host a multidisciplinary event titled “The Silent Threat - Antimicrobial Resistance Uncovered”, bringing together clinical practitioners and researchers alongside regulators and policy makers, to discuss AMR as a mutual concern.

Purpose: Cross-country cooperation and multidisciplinary involvement are pivotal in addressing antimicrobial resistance, also considering the dwindling antibiotic development pipeline. The MMA Academy event intended to provide a platform for stakeholders to discuss how national action plans are complementing the EU One Health Approach in recognizing the interplay between human health, animal health and our ecosystem. The aim was to bridge potential gaps between scientific and practical work, policy frameworks, regulatory provisions, and clinical guidance by sharing constructive experiences, joint efforts and implementable approaches that may be relevant across healthcare systems.

Method: The collaborative initiative, funded by the *Internationalisation Partnership Awards Scheme Plus (IPAS+)* 2023 of the Malta Council for Science and Technology, was held in Malta on 30 May 2024. Keynote speakers from Norway, Ireland, Sweden and Malta were engaged and invitations for participant registration shared among local stakeholders from public and private entities. The interactive discussions covered AMR policies, antibiotic use, surveillance systems, as well as recommendations for stepping up actions to combat AMR for instance through incentives in the revision of the EU pharmaceutical legislation package. Feedback from participants was collected through a Likert scale evaluation tool.

Findings: Thirty-nine participants attended the event and all respondents to the evaluation exercise (n=22) expressed satisfaction with the content presented and willingness to attend further initiatives. Promisingly, 90% of respondents found the information relevant to their practice, anticipating performance improvement. Attendees commended the quality and depth of sessions, as well as opportunities for interdisciplinary collaboration on implementation prospects.

Conclusion: The MMA Academy, as educational institution within the national competent authority, shall continue strengthening this shared collective commitment, exchanging knowledge and best practices. Connecting science and practice, whilst fostering collaborations, enables us to prevent progress from being undone and drive us forward to continue safeguarding our patients.

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How reliable is one self-reported medication adherence item in stroke survivors? A secondary data analysis from the MAAESTRO study

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Background: Medication non-adherence has been recognized as a potentially preventable risk for stroke recurrence. Electronic monitoring (EM) is considered the gold standard to detect non-adherence. In clinical practice, easy-to-administer and cost-effective self-report questionnaires are often used. However, their reliability to detect non-adherence remains uncertain.

Purpose: To determine the reliability of a single self-reported item to assess non-adherence to direct oral anticoagulants (DOAC) in stroke survivors.

Method: We used data from the MAAESTRO study, where adherence to DOAC was assessed with EM and two self-reported items. EM data from the last four weeks of the observational phase of the MAAESTRO study were selected, and taking adherence [%] was calculated. Item 1 inquired how often patients forgot to take their DOAC with five response options (“never”, “once per month”, “once per two weeks”, “once per week”, “every day”). Item 2 inquired how many tablets patients had taken with a visual analog scale from 0% (no tablet taken) to 100% (all tablets taken). We performed group comparisons using the Kruskal Wallis test, and assessed the relationship between EM and self-reported taking adherence using Kendall's correlation coefficient (τ).

Findings: We analyzed data from 69 patients. The majority was male (55%), the median age was 78 [IQR 72–84] years, and 72% used a DOAC twice daily. Answers to both self-reported items were strongly and positively correlated ($\tau=0.77$, $z=6.89$, $p<0.05$). The median taking adherence was 92.9% [IQR 83.9–100] with EM data and 100% [IQR 98.0–100] with item 2. Patients who forgot their DOAC “once per month” showed the highest adherence (median EM 95.4% [IQR 88.4–98.2]). Patients who responded “never” (median EM 93.8% [IQR 84.2–100]) and “once per two weeks” (median EM 83.0% [IQR 75.4–86.8]) did not differ ($p=0.78$). We observed a weak positive correlation between EM and self-reported taking adherence ($\tau=0.12$, $z=1.14$, $p=0.22$).

Conclusion: Despite consistent answers to both self-reported items, high quality EM data and high quality evidence study, the association between EM and self-reported taking adherence was only weak, indicating a low reliability of self-reported items to detect non-adherence in stroke survivors. Limitations of our study include small sample size and ceiling adherence values with low scattering.

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Development and Validation of mediPORT: A Simple Pre-Operative Risk-prediction Tool for Drug-Related Problems

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Background: Drug-related problems (DRPs) in the pre-operative phase are a leading cause of adverse events and poor patient outcomes. Despite their

importance, no tool currently exists for the early detection of DRPs at the time of hospital admission for elective surgery. The development of an easy-to-use, predictive tool for DRP risk could significantly improve patient safety during the perioperative period. Purpose

The aim of this study was to develop and validate mediPORT that calculates the likelihood of DRPs in patients upon admission, using routinely available clinical data.

Method/Study Design: A case-control study was conducted with elective surgery patients (≥ 18 years) admitted to the pre-anesthesia clinic of the University Hospital Salzburg, all of whom underwent a medication review by pharmacists. A multivariable logistic regression model with backward stepwise selection was used to identify key predictors of DRPs. The model's performance was evaluated by the area under the receiver operating characteristic curve (AUC), and internal validation was carried out using 10-fold cross-validation.

Findings: The target population was 11,176 patients. A total of 1,500 patients were randomly selected, with 284 cases experiencing at least one DRP and 980 controls without DRPs included in the final analysis. The five-variable model included age, the number of medications at admission, body mass index (BMI), sex, and renal function, all of which were identified as key predictors of DRPs. A simpler two-variable model, consisting of age and number of medications at admission, also demonstrated strong predictive accuracy. The AUC for the five-variable model was 0.856 (SD 0.040), and for the two-variable model, 0.847 (SD 0.043). Sensitivity and specificity for the five-variable model were 77.6% and 76.5%, respectively, and for the two-variable model, 81.3% and 75%.

Conclusion: mediPORT is a simple, effective tool for predicting DRPs in pre-operative patients, providing a quick and easy method for identifying patients at high risk for DRPs. The tool's strong performance in internal validation suggests its potential for use in clinical practice, where rapid identification of high-risk patients can enhance patient safety. Building on this, an external validation study is planned to assess mediPORT across both inpatient and outpatient settings in Austria. This upcoming multicenter validation will further refine the tool and could meaningfully improve patient safety by reducing the occurrence of DRPs nationwide.

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Development of an interprofessional healthcare service for chronic hypertension management: A qualitative study involving patients, general practitioners and pharmacists

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Background: In Switzerland, 22% of men and 17% of women are diagnosed with hypertension. Additionally, it has been shown that over 60% of patients have uncontrolled blood pressure. In other countries, interprofessional services involving various healthcare professionals (HCPs), such as pharmacists, general practitioners (GPs), and other specialists, have been implemented to co-support patients in the management of chronic hypertension. These services have shown a positive impact on the health of patients diagnosed with hypertension. In Switzerland, there is no specific national interprofessional care management for these patients.

Purpose: The aim of this study was to develop the framework of a new interprofessional service for chronic hypertension management using participatory methods involving patients, pharmacists and GPs.

Method: Six patients diagnosed with hypertension participated in a focus group. In addition, semi-structured interviews were organized for six pharmacists and six GPs. Patients and HCPs shared how they currently manage hypertension, their thoughts on how communication should occur, and their vision for a new interprofessional service for managing hypertension. The interviews were audio-

recorded and subsequently transcribed anonymously. Data analysis was conducted using MAXQDA® software (version 24.2.0) and followed a systematic approach based on the step-by-step procedure of thematic analysis by Naeem et al.

Results: Currently, most patients are diagnosed and followed up at GP practices, while receiving medication from pharmacies. For patients, important aspects of a new interprofessional service were a consultation room to conduct services, efficient communication between HCPs and the reimbursement carried out through health insurances. Almost all pharmacists and GPs recognized the benefits of co-care management in enhancing patient care, reducing costs, and relieving patient burdens. However, this kind of collaboration seemed complicated in some parts of Switzerland, where GPs can dispense medication in their medical practice. For the HCPs interviewed, clear role definition and efficient communication between each other are essential to create an effective co-care service. Most of the HCPs would prefer an online communication tool. Some of them also felt that it would be beneficial if pharmacists could have more responsibilities in terms of medication change e.g. for the purpose of blood pressure targets.

Conclusion: Pharmacists and GPs are interested in sharing the care of chronic hypertensive patients and patients would be wanting to benefit from it. Further research with more HCPs and patients is needed, to co-develop a realistic and useful service to improve the care of the patients with hypertension.

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Changes in Inhalation Therapy in Patients with Lung Cancer – a Retrospective Cohort Study

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Background: The symptoms of lung cancer and COPD are often overlapping. Moreover, both diseases are highly associated with a smoking history. Thus, inhalation therapy for obstructive lung diseases may often be initiated or modified prior to an initial lung cancer diagnosis, possibly with no valid indication and contributing to additional adverse events (AEs).

Purpose: To describe the characteristics and changes in inhalation therapy in patients with non-small-cell lung cancer (NSCLC) before, at and after its initial diagnosis.

Method: A retrospective observational cohort study in patients with NSCLC, treated at the University Clinic Golnik, Slovenia, a referral centre for diagnosis and treatment of pulmonary disease, was conducted. Patient information and other medical data were collected by reviewing patient medical records. At the study centre, data on cancer treatment, concomitant medications and AEs during cancer treatment are collected prospectively and using pre-specified proformas.

Findings: From the 298 reviewed NSCLC patients, 80 (27%) had an inhalation therapy changed up to 6 months prior to NSCLC diagnosis, with 62 patients (21%) being prescribed an inhalation therapy for the first time ever. Of the 80 patients with a change in inhalation therapy, the majority (74; 93%) reported respiratory symptoms at the time of NSCLC diagnosis. The indication for inhalation therapy was COPD (48/80; 60%), asthma (7/80; 9%) or both (8/80; 10%), while as much as a fifth of patients (17/80; 21%) had no valid indication. Prior to NSCLC diagnosis, patients had prescribed a median of 3 inhalation agents (IQR: 2–4), with short-acting bronchodilators (SABA/SAMA) being prescribed most often (69/80; 86%) and inhalation corticosteroids (ICS) being prescribed in 39% (31/80) of patients. Patients often discontinued inhalation therapy over time, with only 55/80 (69%) and 40/72 (56%) taking inhalation medications at the start and six months after cancer treatment initiation, respectively. Oral candidiasis occurred more often in patients with vs without ICS (16/31; 52% vs 14/49; 29%; χ^2 , $p=0.038$) but not pneumonia (13/31; 42% vs 14/49; 29%; χ^2 , $p>0.05$).

Conclusion: Inhalation therapy is initiated or changed in a quarter of patients